I. Amendments to the Claims

This listing of claims replaces, without prejudice, all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) An immunosensor system with reduced interference, comprising:

a first immunosensor that includes a first immobilized antibody and generates a first signal based on a sandwich between the first immobilized antibody, a target analyte and a labeled antibody, wherein a portion of the first signal arises from non-specific binding of the labeled antibody ~~in the region of the first immunosensor~~, and

a second immunosensor that includes a second immobilized antibody and acts as an immuno-reference sensor and generates a second signal that is the same as or predictably related to the degree of non-specific binding ~~which occurs in the region of the first immunosensor~~, and has an immunocomplex between the second immobilized antibody and an endogenous or exogenous protein that is in a sample and that is not the target analyte; and

an analyzer configured to determine a corrected signal from the first and second signals.

2. (Original) The immunosensor system of claim 1, wherein the first and second immunosensors are electrochemical sensors.

3. (Cancelled).

4. (Cancelled).

5. (Previously presented) The immunosensor system of claim 1, wherein the first

immunosensor and the second immunosensor are in a disposable cartridge for measuring analytes in the sample.

6. (Previously Presented) The immunosensor system of claim 1, wherein the target analyte is selected from the group consisting of troponin I, troponin T, creatine kinase MB, procalcitonin, hCG, NTproBNP, proBNP, BNP and myoglobin, in the sample.

7. (Previously Presented) The immunosensor system of claim 5, wherein the second immobilized antibody is to a plasma protein.

8. (Cancelled).

9. (Previously Presented) The immunosensor system of claim 5, wherein the endogenous or exogenous protein in the sample is present at a concentration sufficient to bind more than 50% of the available second immobilized antibody within about 100 seconds of the sample contacting the immunosensor system.

10. (Previously Presented) The immunosensor system of claim 5, wherein the second immobilized antibody has an affinity constant of about 1 x 10(-7) to 1 x 10(-15).

11. (Previously Presented) The immunosensor system of claim 1, wherein both of the first and second immobilized antibodies are immobilized on microparticles of diameter in the range 0.01-5.0 μm.

12. (Previously Presented) The immunosensor system of claim 1, wherein the endogenous or exogenous protein is present in the sample at a concentration of at least three orders of magnitude above the affinity constant of the second immobilized antibody.

13 – 68. (Cancelled).

69. (Previously Presented) The immunosensor system of claim 6, wherein the sample comprises a blood sample.

70. (Previously Presented) The immunosensor system of claim 12, wherein the sample comprises a blood sample.

71. (New) The immunosensor system of claim 1, wherein the non-specific binding occurs on the first immunosensor.